

## ABSTRACT

1 Systems and methods for employing opportunistic data transfer to create a  
2 dynamically mobile data communication system. Implementation of the present invention  
3 takes place in association with a computer environment with many possible types of  
4 computer system configurations such as personal computers, hand-held devices, multi-  
5 processor systems, microprocessor-based or programmable consumer electronics, networked  
6 PCs, minicomputers, mainframe computers, and the like. Data is automatically compared  
7 and replicated between communication nodes when the nodes are within transmission range  
8 in order to move the data by creating redundant copies of the data. Communication between  
9 communication nodes is enabled by one or more network interfaces that include an  
10 opportunistic data transfer protocol ("ODTP") component. Because ODTP components are  
11 opportunistic, establishing network connections whenever possible and utilizing the  
12 connection for as long as the connection exists, reliable connections are not required to carry  
13 out network functions. When a connection is lost, the ODTP component waits for another  
14 connection to be established or for a re-connection, in which case the ODTP component will  
15 resume from the point that it left off with the previous connection.